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Basic Hope And Generativity In Middle Adulthood

The aim of the presented research was to investigate the relationship between the level of basic hope and the level and type of generativity in persons in middle adulthood. Hypotheses were posited and a positive correlation relationship was expected between basic hope and generativity, as well as a stronger relationship between those variables in the group of women than in the group of men, as well as a stronger relationship in the group of persons with a higher level of education than in the group of persons with a lower level of education. A sample of 120 persons was studied, of which 70 were women and 50 constituted men aged between 40-65 years. Two measurement instruments were used - one to diagnose generativity (author's own instrument), and the second to measure basic hope devised by Trzebiński and Zięba. The results of the conducted research have confirmed the posited hypotheses.

Keywords: middle adulthood, generativity, basic hope

Introduction

The intensive development of life course psychology has given rise to raised interest in research on all the developmental stages, including middle adulthood. Thanks to the theory of Erikson, a significant potential was noticed in this stage of life that was termed as generativity, which in reality was merely outlined by Erikson, but for the continuators of his thought, became an inspiration to undertake deepened analysis and empirical searches. They tend towards both a more precise definition of the concept of generativity as well as to determine its role in the life of an individual or society, and also to identify the repertoire of its determinants. One of the factors that can designate undertaking generative obligations is basic hope.

Generativity

In analyses on developmental properties during middle adulthood, reference is commonly made to the theory of psychosocial crises of E. Erikson (1997; 2002; 2004), as well as to its continuators, Kotre (Kotre & Kotre, 1998), or McAdams (2001). The attractiveness of this concept results, among others, from defining middle adulthood as a stage of life in which a specific psychosocial crisis takes

place based on the conflict between two tasks – generativity and stagnation. Under the influence of Erikson's theory, generativity became the object of numerous discussions and theoretical concepts as well as conducted research. The term generativity was initially understood as procreativity, productivity, creativity and activity directed towards shaping one's own personality, which were meant to jointly serve the future generations (Erikson, 1997; 2004). At present, however, less attention is paid to its biological aspect, namely, to procreativity. It is most commonly accepted that generativity constitutes the concentration of an individual on future generations and on making a commitment to care for them and support them by such actions like teaching, assuming the role of mentor, creating products for adolescents as well as providing assistance to social institutions that facilitate their well-being (McAdams, 2001; McAdams, Diamond, de St. Aubin & Mansfield, 1997). Stagnation, on the other hand, signifies lack of care for the next generation, lack of creative activity, or difficulty in creating an inheritance that can be left for others, instead of which they place their own interests in the centre of their attention and concentrate on sustaining such a state.

In order to deepen the content of the construct of generativity, J. Kotre (1984 quoted after McAdams, 2001; Wojciechowska, 2008a), devised the concept of its four manifestations in which he included biological,

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parental, instrumental and cultural generativity. Biological generativity involves having children, fostering and caring for the upbringing of a child in its infancy, whereas parental generativity is the continuation of caring for progeny right up to the adolescence stage and supporting them in their developmental processes, which is supplemented by the task of introducing them into the world of family traditions and rituals. The next type – instrumental generativity – is expressed in the adult acquiring new skills and competences and in providing assistance to less mature and educated individuals in order to help them master the new skills and competences. The fourth type, cultural generativity, signifies striving to transmit cultural heritage to the next generation by sustaining, creating or modifying the social system of symbols and the institutions representing them. The outlined concept seems interesting due to the fact that it accentuates that not only direct but indirect fostering of the development and well-being of the future generation can constitute a value for it wherein the generative individual takes on a creative approach to individual development and extends their Self to others.

According to the concept of E. Erikson (Erikson, 2002; McAdams, 2001), middle aged persons want to be generative, they are ready to share their experiences and knowledge with the younger generation and at the same time respond to the demands set by society for them to use their resources for the welfare of others. Undertaking this type of activity brings measurable social and individual benefits and also constitutes for the middle aged individual a condition for maintaining mental health (Erikson, 2004). However, as already mentioned, not everybody manages to successfully solve conflicts between generativity and stagnation; moreover, they are capable of fulfilling this developmental task to a varied extent and intensity. The question, therefore, arises as to what factors are responsible for the differences in generative feelings, attitudes and actions? Referring to the principle of epigenesis lying at the foundation of the theory of E. Erikson (2002; 2004), it is assumed that the successful solution to the so-called basic conflict on a given stage of development is possible when conflicts that are characteristic of the earlier stages in life are solved beforehand. This is because each subsequent activity of a person includes within it the earlier form that was perfected in previous developmental stages. If an individual failed to cope with past confrontations it may have a problem with undertaking and fulfilling the next psychosocial tasks. These difficulties may result from failure of given psychological strengths to be formed, the very strengths which become the outfit of the individual and constitute a significant condition for the further development of the personality and for coping with the course of developmental crises. Crucial for the shaping of the ego as well as for undertaking generative tasks is in adulthood, according to Erikson (2002), is the solving of

the first life conflict, which results from going against basic trust and basic distrust which enables the shaping of the life strength referred to as basic hope.

Basic Hope

Basic hope is acknowledged by Erikson (2002; 2004) as being chronologically the first life strength (virtue or ego competence) that arises in the individual due to the successful resolving of the conflict between the alternative attitudes of trust and distrust¹ in the infant stage. Erikson (2002) understands this strength as a certain type of innate drive motivating to undertake action in order to achieve intended goals and he highlights that an individual possessing hope approaches the fulfilment of expectations with a great freedom and boldness. He acknowledges basic hope as being particularly significant for psychosocial development due to the fact that, seeing that it develops first, it becomes the most permanent among all the ego strengths possible to acquire as well as the foundation for the next ego competences with which it is jointly participating in the process of shaping the structure of the personality. Therefore, the remaining virtues cannot be formed without earlier experiencing hope (Sękowska, 2000).

A different definition of hope was suggested by Seligman (1993) who referred to the concept of attribution styles. According to him, hope can be described in two style dimensions of explanations, such as the scope and stability of perceiving failures. Experiencing hope means evaluating the reasons of failures as being short-term and having a limited scope, whereas lack of hope is manifest in explaining failures as being permanent and global in scope. Experiencing hope is possible because the short-lasting causes limit the impact of the negative factors in time and the limitation of the scope enables failures to be limited only to the situation in which they were experienced. Perceiving the reasons of failures as being permanent and global increases the helplessness felt by the individual and leads to the reasons being generalised and extended to numerous other areas of an individual's activity, thus, giving rise to a sense of loss of faith and hope.

Among the many concepts and theories referring to hope, of which there are an estimated 26 (Gallagher & Lopez, 2009; Lopez, Snyder & Teramoto-Pedrotti, 2003), the cognitive and emotional theory of Snyder and colleagues is particularly significant. Hope in this theory is understood as the thinking of an individual that is directed towards a given goal and is manifest in the conviction that they are capable of devising ways of achieving this goal as well as being capable of identifying the motivations behind the given methods employed in this and to effectively strive

¹ The next life strengths that are shaped, according to Erikson, during the course of psychosocial development is the will, purpose (determination), competence, fidelity, love, caring and wisdom.

towards the desired goal (Lopez, Snyder & Teramoto-Pedrotti, 2003). A similar definition of hope is formulated by Koziński (2006), who emphasises its cognitive aspect. According to him, hope is a multidimensional cognitive construct whose key element is the conviction of an individual that there is a big probability that it will achieve the specified good in the future. Apart from the cognitive factor, it is composed of emotions, motives or a sense of agency (*ibidem*). Persons with a high level of hope will, therefore, be inclined to use the following type of statements: "I know how to achieve the goal" and "I want to achieve this goal and I'm confident of my strategy and my abilities employed in striving towards it" (Gallagher & Lopez, 2009).

It is also worth mentioning the approach that treats hope as a character strength (Peterson & Park, 2007; Trzebińska, 2008), which, among other traits like spirituality, cheerfulness or gratitude, is responsible for shaping the general virtue of transcendence. In this approach, hope is connected with positive expectations in relation to the future and undertaking concrete actions in order to achieve a better end, as well as the conviction of the individual that this lies within its capacity.

From the perspective of this study, the most interesting seems to be, in line with Erikson's concept, the concept of the basic hope of Trzebiński and Zięba (2003a). Their scientific inspiration became the statement that the works of the creator of the concept of psychosocial development lack a more extensive description of the content and function of basic hope in adults. These Authors adopted the premise that the foundation of hope is the opinion referring to the reality wherein the surrounding world is perceived as being ordered, purposeful and friendly towards people. Hope constitutes, therefore, the conviction about the existence of a higher order and good of the world (*ibidem*). In the proposed approach, the aspect of having a conviction about oneself is omitted and stress is placed on the perception of the structure of the world, which places hope within the worldview that determines the interpretation of phenomena and events and reacts to challenges and arising difficulties.

As was highlighted by Trzebiński and Zięba (2003a), basic hope, shaped in the beginning stage of life, can be differentiated between persons in terms of its level, depending on the nature of the early childhood experiences concerning, in particular, the relationship with the mother or another significant person. The regularity and foreseeability of caring applications as well as a close and trusting bond of the mother and child guarantees a more strongly mastered and grounded basic hope, thus, leading to the acquisition of more certain convictions about the sense and friendly attitude of the world. Basic hope as a structure of personality has a relatively large constancy attributed to it, however, particularly under the influence of critical situations, changes in its intensity may take place

during the life course, although these changes are not very significant as in the case of other attitudes which are shaped in the later stages of life.

Transformations within basic hope also concern the very content of convictions about the orderliness and sense of the world as well as about its friendly attitude. The paths of the evolution of the views, which refer to both basic traits of the world, can be traced to go from the direction of egocentric convictions of a small child to being gradually broadened to phenomena taking place in a continually more extensive environment and in continually greater areas of life. In effect, a person stops concentrating on their conviction that the phenomena that are taking place are merely in relation themselves alone, which is formed during the contacts of the mother and child, and goes on to build a conviction about the order of the world that is based on information about the regularity of events in the broader and broad environment. Opinions about the friendly attitude of the world also are no longer related only with satisfaction of personal needs and become projected to other people and other areas of life (*ibidem*).

Basic hope fulfils an important regulative function – its higher level makes coping with challenges and difficulties possible. Belief in the sense and friendly attitude of the world facilitates an openness to new experiences and makes it easier to take on challenges or to accept support from the milieu. It also enables the interpretation of past and present experiences as well as for future events to be foreseen.

Basic Hope And Generativity

The premise can be accepted that if a strong conviction about the orderliness, sense and positivity of the world gives rise a person having a positive approach to changes and can then better cope with building a new order (Trzebiński, 2007), it will also be helpful when the individual finds themselves in a situation of entering into the next stage of development, namely, middle adulthood, and will help them undertake the generative tasks that are typical of this stage in life. The changes taking place during this stage consist of adaptation to the social expectations made of individuals, which consist of moving away from an expansion directed towards finding one's own place in society, and moving towards strengthening personal achievements to date, with a balanced tendency to provide others with support. Basic hope would also be the strength that enables coming to terms with losing the current youthful life style and finding oneself in the new role of a middle-aged adult (Oleś, 2000; Wojciechowska, 2008b).

Justifications for looking for a relationship between basic hope and generativity can also be sought in the statement of Erikson (2002; 2004) about the differences in expressions of generativity which result from the so-called "belief in

humanity.” Strong belief in the human race constitutes the grounds for perceiving the sense of giving one’s energy for other people’s benefit and strengthens the involvement of an individual in maintaining the condition of generative institutions. A weak belief or its complete absence would render it more difficult to expect an individual to exert effort into something, which they may never come to experience the effects of. This way of understanding “belief in humanity” seems to call to mind the concept of basic hope, in other words, it is connected with a perception of the world as having sense, being ordered and being favourably inclined towards the generative tasks of a middle-aged individual.

Thanks to belief in humanity, i.e. basic hope, the psychosocial crisis of generativity vs. stagnation can be successfully resolved and the conditions arise for the ego to be safely formed as well as for the full development of the personality. The presented theoretical assumptions enable, therefore, the acknowledgement that positive hope can be perceived in relation to generativity and premises exist also for the relationships between these constructs to be researched.

Problems And Hypotheses

The theoretical arguments in favour of the existence of a relationship between basic hope and the generativity of middle-aged persons were subject to empirical verification. Tests were planned that would facilitate finding the answer to the following questions:

1. Can a relationship be found between basic hope and the generativity of persons in middle adulthood?
2. Is the relationship between basic hope and generativity different in women and men in middle adulthood?
3. Is the level of education a factor that differentiates the generativity of persons in middle adulthood?

The following was expected:

1. There exists a positive relationship between the level of basic hope and the level of generativity. This hypothesis was obtained from the theory of Erikson (2002), who stressed the significance of basic hope, which is shaped in early childhood, in the development of the personality and in solving psychosocial conflicts on subsequent life stages, including in middle adulthood, when an individual faces the dilemma of generativity or stagnation and when belief in humanity can be identified with basic hope, is a condition of the expression of generativity.

2. The relationship between basic hope and generativity is stronger in women than in men. This hypothesis is justified by the supposed different levels of generativity in women and men. Generativity researchers, including McAdams (McAdams, 2001; McAdams, Hart & Maruna, 1998), the founder of the integrative model of generativity, highlighted

that generativity expression is closely related with social and cultural standards that determine the activity or life style of an individual. Social expectations, on the other hand, differ between women and men, which is manifest in the different models of socialisation and expectations directed at women wherein parenthood and caring as well as looking after others constitutes a significant element of their life as well as the basic aspect of their identity (Fromm, 1992; Hansen, Slagsvold & Moun, 2009). The results of some research confirm that women are, to a greater extent than men, oriented towards social relations (Hall & Halberstadt, 1986 quoted after: Hyde & Frost, 2002). Since generative actions require a certain degree of sacrifice for the good of others as well as involvement in the development and well-being of the younger generation, they can therefore become a part of women’s experience more so than men’s. The demands held in relation to the male role refer less to caring functions, which is why they can manifest a lower level of generativity. The described differences between the sexes may modify the relation between basic hope and generativity.

3. It is expected that differences in the level of education may modify the relation between basic hope and generativity. It seems that this relation is stronger in the group of persons with a higher level of education than in persons with a lower level of education. This can be substantiated by the results of available research on generativity (McAdams, 2001; McAdams, Diamond, de St. Aubin, & Mansfield, 1997; McAdams, Hart, & Maruna, 1998), which show that a higher level of education has a positive correlation with certain measures of generativity in comparison to a lower level of education. It turns out that persons with a higher level of education reveal a higher level of civic responsibility and also provide greater emotional support than persons with a lower level of education (McAdams, Hart, & Maruna, 1998). Thus, it can be presumed that the differentiation between expressions of generativity resulting from the level of education may have an effect on the correlation between basic hope and generativity.

Measurement Instruments Used In The Study

An instrument measuring generativity and basic hope was used in the study.

- a) The Basic Hope Inventory (BHI-R) was devised by Trzebiński and Zięba in 2009 and constitutes the corrected version of the published BHI-12 Questionnaire (Trzebiński & Zięba, 2003a). The BHI-R Questionnaire has not yet been published but the Authors have given their consent for it to be used in these studies. The BHI-R measures the strength of basic hope understood as the conviction of an individual about the basic traits of the world – orderliness,

sense and friendly attitude. This is a self-descriptive instrument intended to be applied to adolescents above 16 years of age as well as adults. Among the 20 statements included therein, 16 are diagnostic, and 4 are buffered and not taken into consideration in calculating the overall result. The respondent refers to each of the statements, rating the answer on a 5-point scale ranging from “definitely disagree” to “definitely agree.” The result is calculated based on the total points that have been attributed to the answer on a 5-point scale in which “definitely agree” is awarded 5 points, and “definitely disagree” – 1 point. The scope of points that can be obtained in total is within the range of 16 to 80. The higher the number of points, the greater the intensity of basic hope. For the purpose of this research, the reliability of the BHI-R Questionnaire was verified with the use of Cronbach’s Alpha coefficient. The value of the coefficient is satisfactory and amounts to $\alpha=0.84$.

b) The Level of Generativity Questionnaire (LGQ) constructed by Wojciechowska and colleagues in 2010 for the demands of the mentioned studies and has not yet been published. The questionnaire was inspired by the generativity theory of McAdams and the types of generativity classification of Kotre (Kotre & Kotre, 1998; McAdams, 2001; Wojciechowska, 2008a). McAdams (2001) understood generativity as a multi factor system but most often measured two most important factors, namely, generative caring expressed in the adopted attitude towards the generative object (*Loyola Generativity Scale - LGS*), and generative behaviour, relating to concrete actions directed towards the generative object (*Generative Behavior Checklist – GBC*). Kotre (Kotre & Kotre, 1998; McAdams, 2001; Wojciechowska, 2008a), on the other hand, identified four types of generativity – biological, parental, instrumental and cultural, which give more details about both attitudes as well as generative behaviour. The LGQ Questionnaire measures two dimensions of generativity, which constitute mature generativity and is comprised of two parts. The first, called the Questionnaire of Attitudes and Views, measures the level of generativity caring and takes into consideration the four categories of generativity identified by Kotre. It contains 25 statements concerning the attitudes of respondents. The second part is called the Behaviour Questionnaire and measures the level of generative behaviour also in the scope of the four categories of generativity of Kotre. This part contains 26 statements concerning the activities undertaken. Jointly, both parts enable the overall level of generativity to be measured. The task of the respondent is to evaluate, on a 4-point scale, to what extent they agree with a given statement. The answers that were closest to “I agree” were awarded the greatest number of points. The range of possible points that can be obtained in the first part is from 25 to 100, and in the second part from 26 to 104, whereas, in the entire questionnaire from 51 to 204. Each

Table 1

Measurement reliability Cronbach’s Alpha coefficient for the generativity attitude and generative behaviour in given LGQ scales.

Variable	Attitude	Behaviour	General
Biological generativity	0.52	-	0.58
Parental generativity	0.73	0.79	0.80
Instrumental generativity	0.81	0.82	0.85
Social generativity	0.79	0.79	0.86
Overall generativity	0.87	0.88	0.92

of these scales was based on the principle that the greater the number of points obtained by the respondent, the higher their level of generativity.

The LGQ and its components obtained a satisfactory, high result in the reliability analysis with the aid of Cronbach’s Alpha coefficient, with the exception of the biological generativity scale (Table No. 1), which can be explained by the insufficient number of statements (only 4) measuring this type of generativity.

Respondents

The basic criterion in the selection of the study group constituted the age group between 40 and 65 years of age, enabling this group to be identified as representatives of middle adulthood, thus, consistent with the theory of Erikson, in the age group when two psychosocial tasks – generativity and stagnation, are confronted. Moreover, persons with children were selected in order to avoid the artefact due to the analysed biological aspect in the instrument measuring generativity, and within it, the actions undertaken in relation to small children. An attempt was also made to maintain a balance among the respondents in the proportions of a given sex and for them to include both persons with completed higher and lower education.

As a result, a sample of 120 persons was selected aged 40-65 years ($M=50.77$; $SD=6.26$), of which 70 constituted women (58.3%) aged 40-65 years ($M=51.3$; $SD=6.56$) and 50 men (41.7%) aged between 40-63 years ($M=50.02$; $SD=5.78$). Higher education was declared as being completed by 48.4% of the respondents, middle level education by 53.3%, and vocational by 7.5%. The vast majority of the studied sample (83.3%) was in a marital relationship, while 11.7% were divorced, and 5% constituted widows or widowers. All the persons had children and the majority (55.8%) had two offspring. Almost all the representatives of the study group (90.8%) were professionally active in their working environment.

Table 2
Descriptive statistics for the analysed range variables.

Questionnaire	Indicator	Possible range of results	M	SD	min	max
LGQ	Biological generativity	4-16	13.90	1.74	9	16
	Parental generativity	12-48	43.56	3.55	30	41
	Instrumental generativity	13-52	42.68	5.28	28	52
	Cultural generativity	22-88	66.30	8.25	49	85
	Overall generativity	51-204	166.46	15.33	130	196
BHI-R	Basic Hope	16-80	57.98	8.64	28	76

M - mean value; SD - standard deviation; min - minimum value; max - maximum value

Table 3
Pearson's r coefficient between dimensions of generativity and the level of basic hope along with a one-tailed test of significance.

Generativity:(Attitude + behaviour)	Basic Hope	
Biological	r	0.293**
	p	0.001
Parental	r	0.242**
	p	0.004
Instrumental	r	0.268**
	p	0.002
Cultural	r	0.342**
	p	0.000
overall	r	0.366**
	p	0.000

r- value of Pearson's r coefficient; p- one-tailed statistical significance

Results Of Research

a) Descriptive Statistics

Table 2 presents the analysed variables along with the descriptive statistics – mean values, standard deviations as well as the minimum and maximum values for basic hope and for the four types of generativity (jointly for attitudes and behaviours), as well as for overall generativity (jointly for attitudes and behaviours). The scope in which it was possible to achieve a result for given types of generativity and basic hope has also been shown. Further analysis of the results will be conducted on the joint results of generativity types, including both attitudes and behaviours, due to the fact that both generative attitudes and behaviours correlate analogously to basic hope.

b) The Level of Basic Hope and the Level of Generativity

In order to find the answer to the question concerning the relationship between the level of basic hope and the level of generativity, statistical analysis was conducted with the aid of parametric coefficients of Pearson's r correlation on the results obtained in the entire sample of respondents (Table 3). Statistically significant, positive

correlations were found between the intensity of basic hope and all the categories of generativity measured jointly (attitude + behaviour). The strength of the correlation was diverse. Weak correlations were found between basic hope and biological generativity, parental generativity and instrumental generativity, while moderate correlations were apparent between basic hope and cultural generativity and overall generativity, therefore, between the sum of all the generativities.

The obtained results have confirmed hypothesis 1, which posits a positive relation between the level of basic hope and the level of generativity. This means that persons with a high level of basic hope are characterised by a high level of generativity and the opposite - persons with a low level of basic hope are weakly generative.

c) Basic Hope and Generativity in Women and Men

Firstly, verification underwent whether or not there exists a difference in the level of generativity between women and men. In order to do this, analyses were performed using Student's t-Test, which revealed statistically significant differences between the sexes in the scope of all the generativity categories. It was found that the level of each dimension of generativity was significantly higher in the group of women than in the group of men (Table 4).

Analyses were then performed of the correlations between the dimensions of generativity and the level of basic hope in the group of women and men with the aid of Pearson's r coefficient (Table 5). It was found that in the group of men, contrary to the group of women, not all the correlations between the analysed variables were statistically significant. In the group of men, the relationship between the level of hope and biological and parental generativity turned out to be not significant, whereas in the group of women, biological generativity obtained a significant correlation with basic hope (although the strength of this correlation was moderate), and parental generativity significantly correlated with basic hope (however, the strength of this correlation was weak). In both compared groups, instrumental generativity obtained significant correlation with the level of basic hope although in both cases the strength of the correlation was weak. Cultural generativity and overall generativity obtained

Table 4
Mean values of generativity indicators in the group of women and group of men with the test of statistically significant differences.

Variable	Sex of respondents				t	df	p
	men		women				
	n= 50		n= 70				
	M	SD	M	SD			
Biological generativity	13.30	1.71	14.34	1.64	-3.366	118	0.001**
Parental generativity	42.70	3.39	44.17	3.56	-2.274	118	0.025**
Instrumental generativity	41.52	5.64	43.51	4.89	-2.067	118	0.041**
Cultural generativity	63,54	7.96	68.28	7.93	-3.227	118	0.002**
Overall generativity	161.06	14.18	170.31	15.05	-3.401	118	0.001**

M- mean value; SD- standard deviation; t- test statistic; df- degrees of freedom; p- two-tailed statistical significance

Table 5
Pearson's r coefficient between dimensions of generativity and the level of basic hope in the group of women and group of men along with a one-tailed test of significance.

Variable		Level of hope	
		men	women
Biological generativity	r	0.025	0.441**
	p	0.432	0.000
Parental generativity	r	0.123	0.280**
	p	0.197	0.009
Instrumental generativity	r	0.285**	0.205**
	p	0.022	0.044
Cultural generativity	r	0.254**	0.350**
	p	0.038	0.001
Overall generativity	r	0.288**	0.366**
	p	0.021	0.001

r- value of Pearson's r coefficient; p- one-tailed statistical significance

a moderate strength of significant correlation in both groups with basic hope, although this strength was higher in the group of women. On the basis of this, it is possible to state that hypothesis 2 was confirmed (Table 5).

d) Basic Hope and Generativity in Persons and the Level of Education

Firstly, a comparison was made in the level of generativity between the group of persons with a lower level of education (vocational, middle level) and the group of persons with higher education (bachelor's, engineering or master's degree). Analysis conducted with the use of the Student's t-Test did not reveal the existence of statistically significant differences between these groups (Table 6).

The conducted analyses of the relationship between basic hope and generativity in persons of different educational levels revealed that the correlations are different in the compared groups (Table 7). The level of basic hope obtained a positive correlation with the level of biological generativity only in the group of persons with a lower level of education, while in the group of persons with a higher level of education no statistically significant relationship was found between them. A significant, positive

correlation similar in strength in both groups was obtained between the level of basic hope and the level of parental generativity. Instrumental, cultural and overall generativity also positively correlated with the level of basic hope in both groups that differed in terms of the level of education; however, the strength of the correlation obtained in the group of persons with a higher level of education was higher.

The results presented in Table No. 7 confirm the hypothesis regarding the modifying relationship between the level of basic hope and generativity by the level of education and indicate the existence of a stronger relationship between basic hope and generativity in persons with a higher level of education than in persons with a lower level of education.

Discussion Of Results

The results of the conducted research have confirmed the posited hypotheses. It was established that there exists a positive correlation between the level of basic hope and the level of all the aspects of generativity in persons in their

Table 6
Mean values of generativity indicators in the group of persons with a lower level of education and in the group of persons with a higher education.

Variable	Education of respondents				t	df	P
	lower		higher				
	n= 73		n= 47				
	M	SD	M	SD			
Biological generativity	13.89	1.83	13.96	1.61	- 0.247	118	0.806
Parental generativity	43.52	3.27	43.61	3.99	-0.145	118	0.885
Technical generativity	42.05	4.99	43.66	5.61	- 1,636	118	0.105
Cultural generativity	65.53	7.64	67.51	9.07	- 1.284	118	0.202
Overall generativity	164.99	14.38	168.74	16.06	- 1.315	118	0.191

M- mean value; SD- standard deviation; t- test statistic; df- degrees of freedom; p- two-tailed statistical significance

Table 7
Pearson's r coefficient between dimensions of generativity and the level of basic hope in the group of persons with a lower level of education and higher level of education along with a one-tailed test of significance.

Variable		Level of hope	
		lower education	higher education
Biological generativity	r	0.344**	0.182
	p	0.001	0.110
Parental generativity	r	0.240**	0.257**
	p	0.020	0.041
Instrumental generativity	r	0.216**	0.329**
	p	0.033	0.012
Cultural generativity	r	0.271**	0.444**
	p	0.010	0.001
Overall generativity	r	0.318**	0.433**
	p	0.003	0.001

r- value of Pearson's r coefficient; p- one-tailed statistical significance

middle adulthood. With the awareness that the research was correlative in nature and that inference of cause and effect dependencies between the studied variables is unjustified, reference will be made to the premise of a time succession existing in the shaping of basic hope and generativity. The research suggests that generativity can manifest itself at a younger age – during adolescence or in early adulthood, but its full dimension can be observed in middle adulthood. Thus, taking into consideration the sequence of these competences taking place, basic hope is first, whereas generativity developmentally comes later. This is, therefore, the direction of interpretation that shall be adopted in this study.

The relation between the level of basic hope and the level of generativity that was established may, therefore, signify that persons in middle adulthood that have a stronger basic hope, therefore, are more strongly convinced about the sense and friendly attitude of the world, will to a greater extent manifest caring and undertaking actions for the benefit of the younger generation. Thus, what results from this is that basic hope constitutes a significant predictor of generativity and in consequence creates the

chance of coping with the middle age psychosocial crisis more successfully and warranting the full development of the personality. Faith in the ordered and positive attributes of the world is also a valuable resource enabling problems that are related to oneself only to be given less importance and for energy to be channelled to social needs, and showing interest in the values, symbols, traditions, culture and institutions that constitute its carriers. Basic hope also helps individuals in life turning points by facilitating the creation of positive attitudes in relation to changes and increasing the effectiveness of fulfilling a new role (Trzebiński, 2007). This is particularly important in middle adulthood when a change of the time perspective takes place from counting how much time one has lived, to judging how much time there still remains to live as well as the appearance of the reflection of how to use the time in order to leave a positive inheritance after oneself (Olejnik, 2000; Staudinger & Bluck, 2001; Wojciechowska, 2008b). It can also be stated that the empirical data collected in the presented study confirm the explaining value of Erikson's theory.

The differentiation in the size of the correlation coefficient in the relation between basic hope and identified

types of generativity requires further analysis. It has turned out that when compared to other types of generativity, the strongest, although moderately correlating with basic hope, is cultural generativity, which is expressed in creating, modifying or maintaining a system of symbols and transmitting them to the next generations. The object of the undertaken action is not only a young person but also the broadly understood culture and the institutions located within it with which subsequent generations will identify (Wojciechowska, 2008b). Culture and its organs, which constitute an element of the world and its properties, can also provide the grounds to evaluate them as being purposefully organised and directed by positive values as well as to acknowledge that it is worth making a contribution to timeless and permanent values and symbols. This is consistent with the view of McAdams (2001), namely, that generative individuals act for the benefit of the condition and well-being of the community and their significance cannot be overestimated, although they should not forget about maintaining a balance between that and the generativity directed towards the individual.

In relation to the results obtained, it can be stated that biological and parental generativity, manifest mainly in the family and in relation to one's offspring, can be designated not only through basic hope but also through other factors that take place during the life course as well as during psychosocial development. Cultural generativity, on the other hand, can mainly be shaped in relation to basic hope as an element of the worldview, although it has to be borne in mind that both variables are determined by the social relations that are specific to a given culture.

Another result, which refers to the differences between the sexes in the scope of the relationship between basic hope and generativity, confirms hypothesis No. 2, which assumes the modifying relationship between the studied variables and the sex as well as the expectation that the relation between these variables will be stronger in the group of women than in men. The data obtained seem to suggest that in men basic hope is not a predictor of either biological generativity or parental generativity, but it is a predictor of instrumental and cultural generativity. In the group of women, on the other hand, basic hope is connected with all the types of generativity. The perception of the world and its properties do not forejudge, therefore, in men in their middle adulthood, the need to have children (biological generativity), nor their upbringing (parental generativity). What could be the reasons for this? According to the traditional approach to parental roles, which may be present among men from a given age cohort, upbringing and caring for a child is the domain of activity belonging to women. Men, on the other hand, according to the traditional definition of their role, see their place in more prestigious goals and areas of activity. Taking care of abilities and competences of the young generation as well as caring for

the transmission of cultural values may seem much more important to them than manifestations of caring behaviour (Fromm, 1992).

The analysis of results applied in verifying hypothesis No. 3 regarding the relationship between basic hope and generativity, which was modified by the level of education of the respondents, have confirmed the hypothesis. The data obtained in the studies reveal that basic hope is a predictor of biological generativity only in the group of persons with a low level of education, which means that the view about the order, sense and friendly attitude of the world only in the group of persons with a low level of education facilitates making the decision regarding having children. In persons with a higher level of education, basic hope is not connected with biological generativity which may signify that better educated persons are not guided by basic hope when it comes to deciding about such matters but are rather guided by the personal resources that they possess, namely, satisfactory financial standing, a high level of competences or a stable professional position in the work environment. Thus, regardless of the worldview held, they are convinced that in possessing a given potential they are capable of planning their offspring and can provide worthy living conditions for their children.

Furthermore, in both groups with a different level of education, basic hope is a predictor of all the remaining types of generativity, namely, parental, instrumental and cultural. However, in the group of people with higher education the correlation relationship between basic hope and cultural generativity reaches the highest value in comparison to the value of the correlation coefficients obtained in relation to other types of generativity and in relation to the values of relationships between the group of persons with a lower level of education. The conviction among persons with a higher level of education about the existence of a world that is ordered and has sense seems to motivate them to assume a creative approach to the environment and to generate positive heritage as well as to act for the benefit and development of society. This is because persons with a higher level of education are better equipped in manifold capital and they have something to share with society, considering that the level of education is a complex dimension, which includes both the intellectual level and the overall sensitivity and openness to the world and to new experiences. Such dispositions to a significant extent enable persons to respond to the demands of society and to meet the cultural expectations of future generations, thus creating a better foundation for the fulfilment of generativity.

Ending the discussion on the problem of the relation between basic hope and generativity in groups of persons with diverse educational backgrounds due to their level of education, it is worth referring to the results in Table 6, which reveal that there are no differences in the level of

generativity of persons with a higher and lower level of education. Perhaps, therefore, the diverse relation between basic hope and generativity in the groups of persons with varied levels of education that was revealed seems to show that the level of hope is a modifier of this relationship in the studied groups.

Based on the referred results of research it is possible to state that the middle adulthood stage is a time when new social tasks appear, which are connected with undertaking generative goals and one of their determinants may be the shaped in early childhood, namely, the competence called basic hope. It seems, however, that the social awareness of this potential embedded in middle adulthood is insufficient and the knowledge on the determinants and roles of both early and later experiences in finding one's place in middle age also seems far too restricted. The theories concerning this stage of life define its role, significance and patterns of functioning in a variety of ways. Among them, the most scientifically stimulating seems to be the theory of Erikson, which emphasises the positive effect of the developmental crises experienced by people and lays down the foundations for considerations on middle adulthood that are congruent with positive psychology.

Conclusions

1. The hypothesis regarding the positive relationship between the level of basic hope and the level of generativity among persons in middle adulthood has been confirmed.

2. The hypothesis regarding the stronger relationship between the level of basic hope and the level of generativity in the group of women than in men has been confirmed.

3. The hypothesis regarding a stronger relation between the level of basic hope and the level of generativity in the group of persons with a higher level of education than in the group of persons with a lower level of education has been confirmed.

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